SONY

4-085-330-**11** (1)

LCD Video Projector

Operating Instructions GB
Mode d'emploi FR
Manual de instrucciones ES

MEMORY STICK

VPL-HS1

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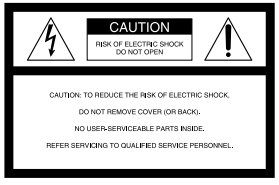
Section 1
Operating Instructions

Reprinted from the operating instructions

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the USA
If you have any questions about this product, you may contact:
Sony Electronics Inc.
Attn: Business Information Center (BIC)
12451 Gateway Boulevard
Ft. Myers, Florida 33913
Telephone No.: 800-686-7669
The number below is for FCC related matters only.

Declaration of Conformity
Trade Name: SONY
Model No.: VPL-HS1
Responsible Party: Sony Electronics Inc.
Address: 680 Kinderkamack Road, Oradell
NJ 07649 U.S.A.
Telephone No.: 201-930-6972

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada
This Class B digital apparatus complies with Canadian ICES-003.

Voor de klanten in Nederland

Bij dit product zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

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Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected to the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes. The air coming out is hot.

On preventing internal heat build-up

After you turn off the power with the I / ⏻ (on/standby) switch, do not disconnect the unit from the wall outlet while the cooling fan is still running.

Caution

The projector is equipped with ventilation holes (intake) and ventilation holes (exhaust). Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On repacking

Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

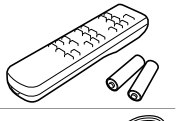
Connections and Preparations

This section describes how to install the projector and screen, how to connect the equipment from which you want to project the picture, etc.

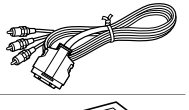
Unpacking

Check the carton to make sure it contains the following items:

Remote control (1), Size AA (R6) batteries (2)

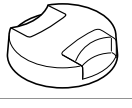


Signal interface cable (1)



Air filter (for replacement) (1)

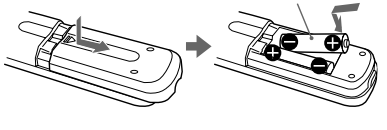
Lens cap (1)



AC power cord (1)
Operating Instructions (1)

Inserting the batteries into the remote control

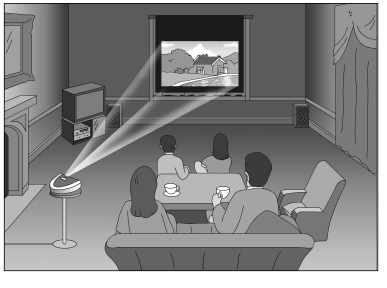
Insert the batteries ⊖ side first as shown in the illustration.



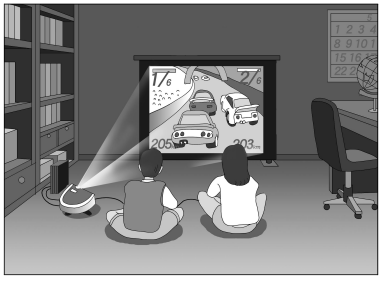
Step 1: Installing the Projector

You can obtain good picture quality even when you project the picture from the side of the screen (“SIDE SHOT”) (☞ page 7). You can enjoy home entertainment with this projector in various situations.

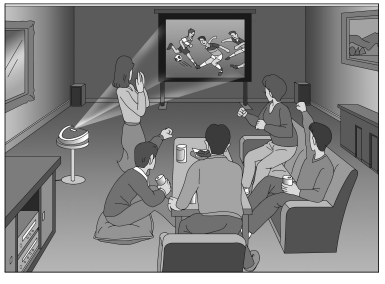
Enjoying home theater



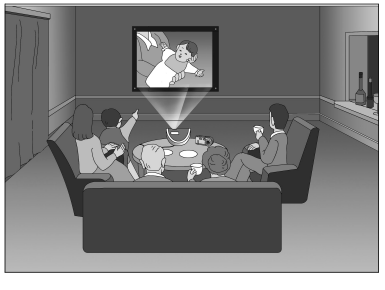
Enjoying video games on a large screen



Watching sports, etc. with your company



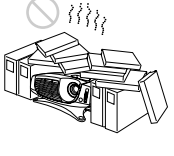
Viewing images, recorded by a digital camera and stored in the “Memory Stick,” on a large screen.



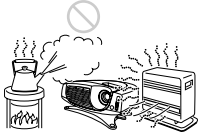
Before Setting Up the Projector

Do not place the projector in the following situations, which may cause malfunction or damage to the projector.

Poorly ventilated



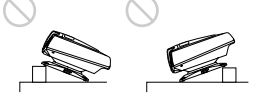
Highly heated and humid



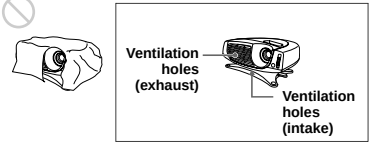
Very dusty and extremely smoky

Do not use the projector under the following conditions.

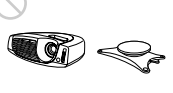
Tilting the unit out of the range of the adjuster setting



Blocking the ventilation holes



Placing the projector without the adjuster



Installing the Projector and a Screen

The installation distance between the projector and screen varies depending on the size of the screen.

1 Determine the installation position of the projector and screen.

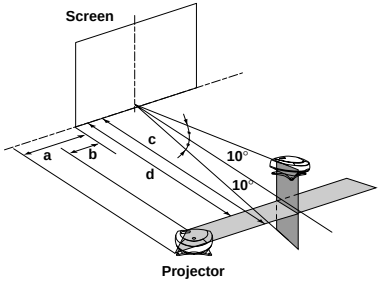
When projecting from the side (SIDE SHOT)

Position the projector with the lens end come within the area in the illustration, by using the values **a**, **b**, **c** and **d** in the table below as a guide. Align the bottom of the adjuster of the projector with the bottom end of the screen.

When projecting from the center

You can change the projection angle using the adjuster.

Position the projector with the lens end come within the area in the illustration, by using the values **c** and **d** in the table below as a guide.



a: Maximum horizontal distance between the right/left end of the screen and the center of the projector’s lens when the projector is placed on the side (for “SIDE SHOT”)

b: Horizontal distance between the right/left end of the screen and the center of the lens when the projector is placed on the side (for “SIDE SHOT”)

c: Maximum projection distance between the screen and the center of the projector’s lens when you use the horizontal distance **a**, or when you place the projector with the center of the screen and the center of the lens aligned.

d: Minimum projection distance between the screen and the center of the lens when you use the horizontal distance **b**, or when you place the projector with the center of the screen and the center of the lens aligned.

Unit: m (feet)

Screen size (inches)	40	60	80	100	120	150
a	0.6 (2.0)	0.9 (3.0)	1.2 (3.9)	1.5 (4.9)	1.8 (5.9)	2.3 (7.5)
b	0.4 (1.3)	0.6 (2.0)	0.8 (2.6)	1.0 (3.3)	1.2 (3.9)	1.6 (5.2)
c	1.7 (5.6)	2.7 (8.9)	3.6 (11.8)	4.5 (14.8)	5.4 (17.7)	6.8 (22.3)
d	1.6 (5.2)	2.5 (8.2)	3.3 (10.8)	4.2 (13.8)	5.0 (16.4)	6.3 (20.7)

When you project a 720p format signal, computer’s signal, etc.

The table shows the distances when projecting the conventional video signals. Distances used for projecting a 720p format signal, computer’s signal and data stored in the “Memory Stick” are shown on page 41.

2 Project an image on the screen and adjust the picture so that it fits the screen.

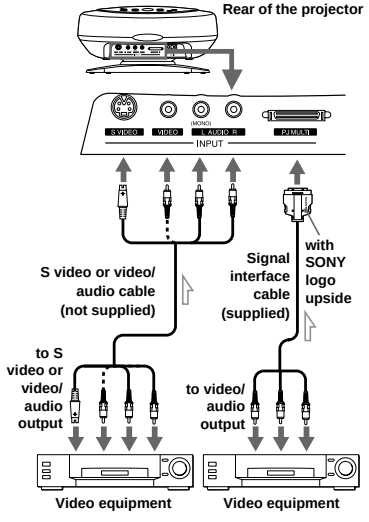
To project an image, connect video equipment to the projector. (☞ page 8)

Step 2: Connecting the Projector

When making connections, be sure to do the following:

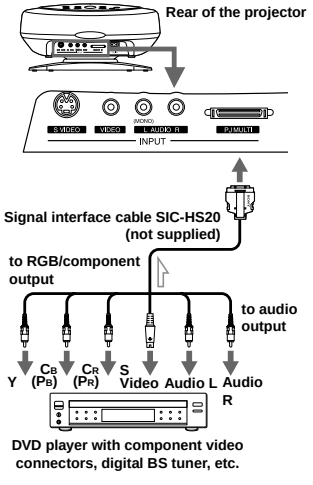
- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.
- When you connect your projector to PJ MULTI INPUT, select the input signal with the INPUT-A setting in the SET SETTING menu. (☞ page 20)

Connecting with video equipment

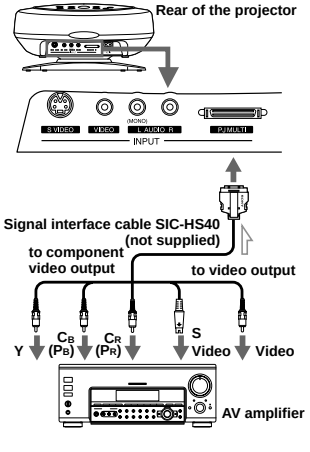


Connecting Using the Optional Signal Interface Cables

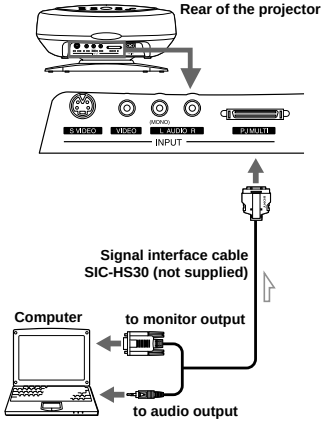
To connect with a DVD player with component video connectors/digital BS tuner



To connect with an AV amplifier

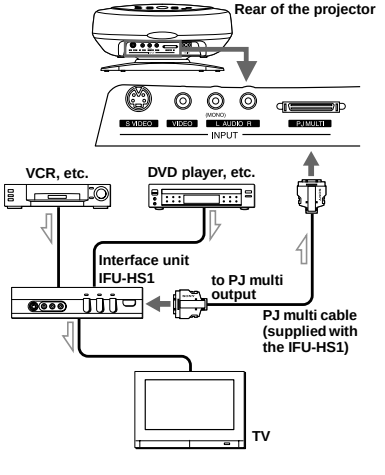


To connect with a computer

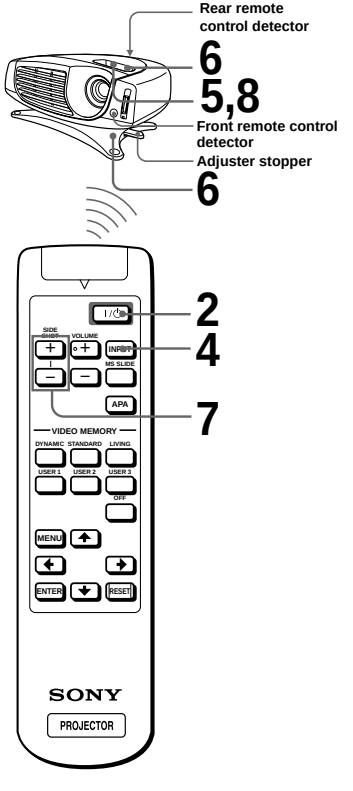


Connecting Using the Optional Interface Unit

Using the optional interface unit allows you to connect various video equipment, and to select the output to the projector or TV from the connected equipment simply by switching the select switch on the interface unit.



Step 3: Adjusting the Picture Size and Position



1 Plug the AC power cord into a wall outlet.

The ON/STANDBY indicator lights in red and the projector goes into standby mode.

Lights in red.

2 Press the I/⏻ (on/standby) switch to turn on the projector.

The ON/STANDBY indicator lights in green.

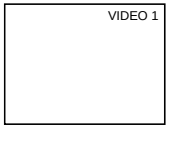
Lights in green.

3 Turn on the equipment connected to the projector.

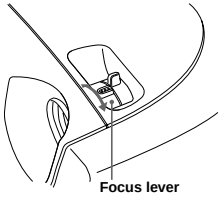
Refer to the operating instructions of the connected equipment.

4 Press INPUT to project the picture on the screen.

Each time you press the button, the input indication changes. (☞ page 15)



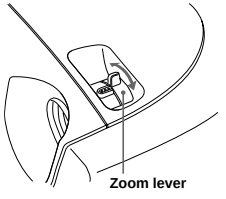
5 Adjust the focus roughly using the focus lever.



Focus lever

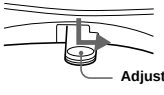
6 Adjust the size and position of the picture to fit the screen using the zoom lever and adjuster.

Move the zoom lever to adjust the picture size.



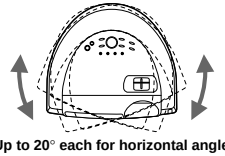
Zoom lever

Use the adjuster to adjust the picture position. Hold down and slide the adjuster stopper to the right, move the projector, then replace the stopper.

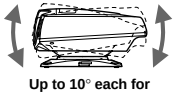


Adjuster stopper

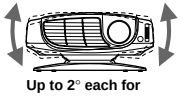
You can move the projector vertically and horizontally within the following ranges:



Up to 20° each for horizontal angle

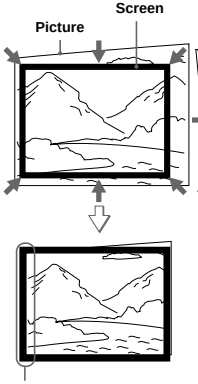


Up to 10° each for vertical angle



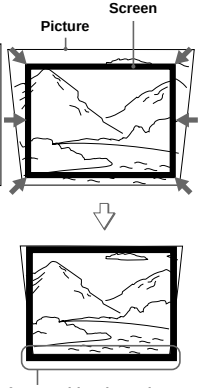
Up to 2° each for tilting angle

When projecting from the side



If you position the projector on the left side of the screen, adjust so that the left side of the picture fits the left side of the screen. For the projector positioned on the right side, adjust so that the right side of the picture fits the right side of the screen.

When projecting from the center

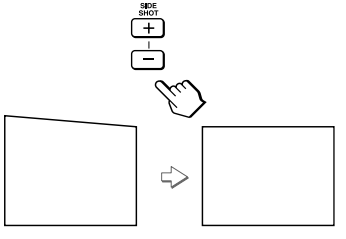


If you position the projector below the bottom of the screen, adjust so that the bottom edge of the picture fits the bottom edge of the screen. For the projector positioned above the bottom of the screen, adjust so that the top edge of the picture fits the top edge of the screen.

7 Adjust to correct the trapezoidal distortion.

When projecting from the side

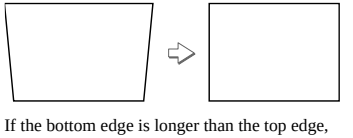
Corrects the horizontal distortion.
Press SIDE SHOT + or – so that the top edge of the picture becomes parallel to the bottom edge. If the left side is longer than the right side, press SIDE SHOT –.



Use SIDE SHOT + if the right side is longer.
To fine-adjust the distortion, press ↑ or ↓.

When projecting from the center

Corrects the vertical distortion.
Use the menu. Select V (vertical) with the KEYSTONE DIR setting in the INSTALL SETTING menu. Next, adjust with the DIGIT KEYSTONE setting so that the left side of the picture becomes parallel to the right side. (☞ page 20)
If the top edge of the picture is longer than the bottom edge, set to a plus value.

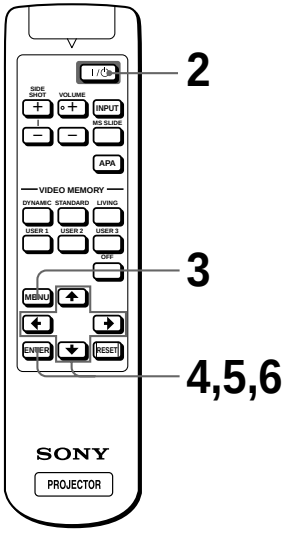


If the bottom edge is longer than the top edge, set to a minus value.

8 Adjust the focus again using the focus lever.

Step 4: Selecting the Menu Language

You can select one of nine languages for displaying the menu and other on-screen displays. The factory default setting is English.



1 Plug the AC power cord into a wall outlet.

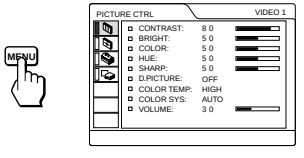
The ON/STANDBY indicator lights in red and the projector goes into standby mode.

2 Press the I/⏻ (on/standby) switch to turn on the projector.

The ON/STANDBY indicator lights in green.

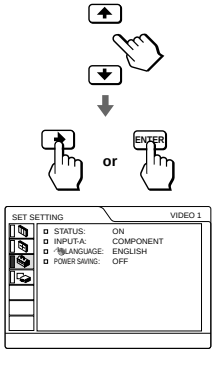
3 Press MENU.

The menu appears.
The menu presently selected is shown as a yellow button.

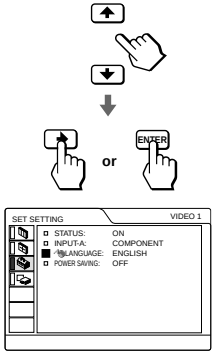


4 Press ↑ or ↓ to select the SET SETTING menu, and press → or ENTER.

The selected menu appears.

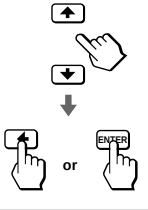


5 Press ↑ or ↓ to select LANGUAGE, and press → or ENTER.



6 Press ↑ or ↓ to select a language, and press ← or ENTER.

The menu changes to the selected language.



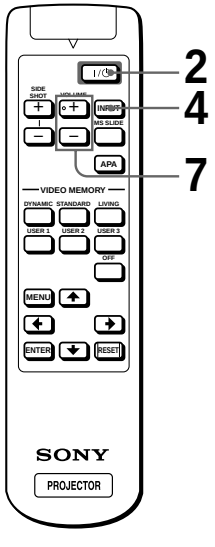
To clear the menu

Press MENU.

Projecting

This section describes how to operate the projector to view the picture from the equipment connected to the projector. It also describes how to adjust the quality of the picture to suit your taste.

Projecting the Picture on the Screen



1 Plug the AC power cord into a wall outlet.

The ON/STANDBY indicator lights in red and the projector goes into standby mode.

Lights in red.

2 Press the I/⏻ (on/standby) switch to turn on the projector.

The ON/STANDBY indicator lights in green.

Lights in green.

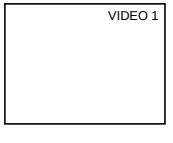
3 Turn on the equipment connected to the projector.

Refer to the operating instructions of the connected equipment.

4 Press INPUT repeatedly to select the input you want to project on the screen.

Display the indication of the input you want.

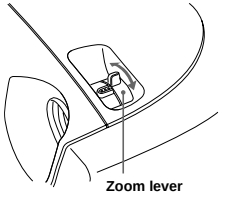
Example: To view the picture from the video equipment connected to the VIDEO INPUT jack.



To view the picture from	Press INPUT to display	Sound is heard from the equipment connected to
Video equipment connected to VIDEO INPUT on the projector	VIDEO 1	AUDIO INPUT
Video equipment connected to S VIDEO INPUT on the projector	S-VIDEO 1	AUDIO INPUT
RGB/component equipment connected to PJ MULTI INPUT via the optional signal interface cable or the interface unit	INPUT A*	PJ MULTI INPUT
Video equipment connected to PJ MULTI INPUT via the optional signal interface cable or the interface unit	VIDEO 2	PJ MULTI INPUT
Video equipment equipped with S VIDEO connected to PJ MULTI INPUT via the optional signal interface cable or the interface unit	S-VIDEO 2	PJ MULTI INPUT
"Memory Stick" inserted into the "Memory Stick" slot	MS	AUDIO INPUT

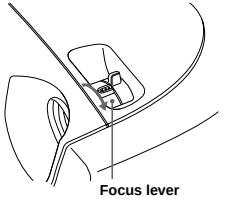
* Set the INPUT-A setting in the SET SETTING menu according to the input signal. (☞ page 20)

5 Move the zoom lever to adjust the size of the picture.



6 Move the focus lever to adjust the focus.

Adjust to obtain sharp focus.



7 Press VOLUME + or – to adjust the volume.

To turn off the power

1 **Press the I/⏻ (on/standby) switch.**
A message "Power OFF?" appears on the screen.

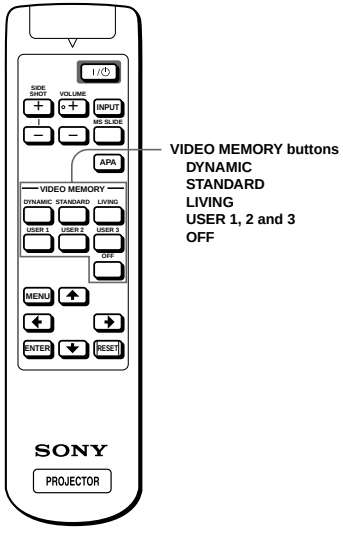
2 **Press the I/⏻ switch again.**
The ON/STANDBY indicator flashes in green and the fan continues to run to reduce the internal heat. Also, the ON/STANDBY indicator flashes quickly during which you will not be able to light up the ON/STANDBY indicator with the I/⏻ switch.

3 **Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.**

You can turn off the projector by holding the I/⏻ (on/standby) switch for about one second, instead of performing the above steps.

Selecting the Picture Viewing Mode

You can select the picture viewing mode that best suits the type of program or room condition.



Press one of the VIDEO MEMORY buttons (DYNAMIC, STANDARD, LIVING and USER 1, 2 and 3).

DYNAMIC
Select for enhanced picture contrast and sharpness.

STANDARD
Recommended for normal viewing condition in your home.
Also select to reduce roughness when viewing the picture with DYNAMIC.

LIVING
Select for soft, film-like picture.

USER 1, 2 and 3
You can adjust the quality of the picture to suit your taste and store the settings into the selected memory of the projector. Press one of the USER 1, 2 and 3 buttons, then adjust the picture by using the menus. The settings are stored, and you can view the picture with the adjusted picture quality by pressing the button. (☞ page 20)

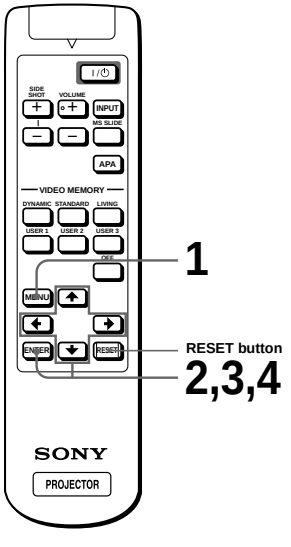
OFF
Select for the setting stored in each input that can be selected with the INPUT button, or each input signal.

Tip
You can select the picture viewing mode using the VIDEO MEMORY button on the projector. Each press of the button selects the above item.

Using the Menus

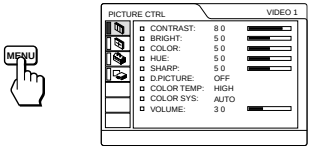
This section describes how to make various adjustments and settings using the menus.

Operation through the Menus



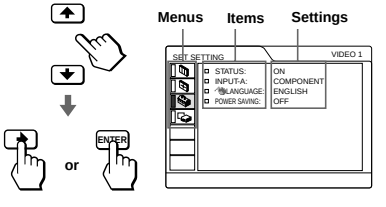
1 Press MENU.

The menu appears.
The menu presently selected is shown as a yellow button.



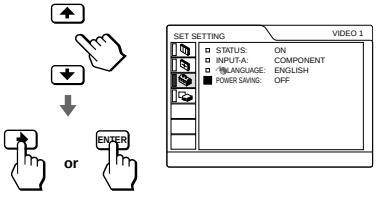
2 Press ↑ or ↓ to select a menu, and press → or ENTER.

The selected menu appears.



3 Select an item you want to adjust.

Use ↑ or ↓ to select an item, and press → or ENTER.



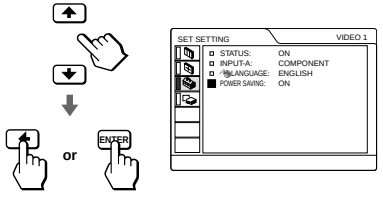
4 Make the setting or adjustment on an item.

When changing the adjustment level

To increase the value, press ↑ or →.
To decrease the value, press ↓ or ←.
Press ENTER to restore the original screen.

When changing the setting

Press ↑ or ↓ to change the setting.
Press ← or ENTER to restore the original screen.



To clear the menu

Press MENU.

To reset items that have been adjusted

Select the item you want to reset, then press RESET. "Complete!" appears on the screen and the setting is reset to its factory preset value.
Items that can be reset are:

- CONTRAST, BRIGHT, COLOR, HUE, SHARP and RGB ENHANCER in the PICTURE CTRL menu
- DOT PHASE, SIZE H and SHIFT in the INPUT SETTING menu
- DIGIT KEYSTONE in the INSTALL SETTING menu

Menu Configurations

The projector is equipped with four menu pages. The items that can be adjusted in each menu are described on pages 19 and 20.

PICTURE CTRL menu

The PICTURE CTRL menu is used for adjusting the picture. You can also adjust the volume with this menu.

INPUT SETTING menu

The INPUT SETTING menu is used to adjust the input signal. You can adjust the size and position, etc. of the picture.

SET SETTING menu

The SET SETTING menu is used for changing the settings of the projector.

INSTALL SETTING menu

The INSTALL SETTING menu is used for correcting distortion. You can change the display position, intensity of the background picture, etc., of the menu screen.

Menu Items

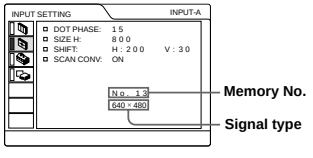
Adjustable items are limited according to the input signals. Items that cannot be adjusted are not displayed in the menu. (☞ page 42)

Menu	Item	Description
PICTURE CTRL	CONTRAST	The higher the setting, the greater the contrast. The lower the setting, the lower the cotrast.
	BRIGHT (brightness)	The higher the setting, the brighter the picture. The lower the setting, the darker the picture.
	COLOR	The higher the setting, the greater the intensity. The lower the setting, the lower the intensity.
	HUE	The higher the setting, the more greenish the picture becomes. The lower the setting, the more purplish the picture becomes.
	SHARP (sharpness)	The higher the setting, the sharper the picture. The lower the setting, the softer the picture.
	RGB ENHANCER	Adjusts the picture sharpness when computer signals are input.
	D. (Dynamic) PICTURE	**ON:** Emphasizes the black color. **OFF:** Reproduces the dark portions of the picture accurately, in accordance with the source signal.
	GAMMA MODE	**GRAPHICS:** Reproduces the photos in natural tones. **TEXT:** Contrasts black and white. Suitable for images that contain lots of text.
	COLOR TEMP	**HIGH:** Gives the white colors a blue tint. **MIDDLE:** Gives the white colors a neutral tint. **LOW:** Gives the white colors a red tint.
	COLOR SYS (System)	Select the color system of the input signal. **AUTO:** NTSC3.58, PAL, SECAM and NTSC4.43 (switched automatically). Normally, set to this position. **PAL-M/N:** PAL-M/PAL-N and NTSC3.58 (switched automatically). When the PAL-M, PAL-N or NTSC3.58 signal is input with COLOR SYS set to AUTO, set to this position if the picture is distorted or colorless.
	VOLUME	Adjusts the volume. It can be adjusted for each of the inputs selected with the INPUT button.
INPUT SETTING	DOT PHASE	When a signal from a computer is input, adjusts the picture for clearer picture after the picture is adjusted by pressing the APA button.
	SIZE H	When a signal from a computer is input, adjusts the horizontal size of the picture. The higher the setting, the wider the picture. The lower the setting, the narrower the picture.
	SHIFT	As the setting for **H** (horizontal) increases, the picture moves to the right, and as the setting decreases, the picture moves to the left. Use ← or → to adjust the horizontal position. As the setting for **V** (vertical) increases, the picture moves up, and as the setting decreases, the picture moves down. Use ↑ or ↓ to adjust the vertical position.
	SCAN CONV (Scan converter)	**ON:** Displays a computer signal according to the screen size. The picture will be slightly softer. **OFF:** Displays a computer signal as it is input. The picture will be clear but the picture size will be smaller. **Note** When SVGA or XGA signal is input, this item will not be displayed.
	ASPECT	**4:3:** Select when the 4:3 aspect ratio picture is input. **16:9:** Select when the 16:9 aspect ratio picture (sqeezed) is input from equipment such as a DVD player.

Menu	Item	Description
INPUT SETTING (continued)	VIDEO MEMORY	You can select picture viewing mode that best suits the type of picture or the environment. **OFF:** Select for the setting stored in each input channel or input signal. **DYNAMIC:** Select for enhanced picture contrast and sharpness. **STANDARD:** Recommended for normal viewing condition. Also select to reduce roughness when viewing the picture with DYNAMIC. **LIVING:** Select for soft, film-like picture. **USER 1, 2 and 3:** You can adjust the quality of the picture to suit your taste and store the settings. Once the settings are stored, you can view the picture with the adjusted picture quality by pressing the button. **To store the settings** **1** Select USER 1, USER 2 or USER 3. **2** Adjust the items you want in the menus. **Items that can be stored are:** CONTRAST, BRIGHT, COLOR, HUE, SHARP, RGB ENHANCER, D.PICTURE, COLOR TEMP, COLOR SYS, SCAN CONV, ASPECT. **Tip** You can also adjust the picture quality in DYNAMIC, STANDARD or LIVING mode. To reset to the factory setting, press RESET.
SET SETTING	STATUS	Set to **OFF** to turn off the on-screen displays except for the menus, message when turning off the power, and warning messages. To display all of the on-screen display again, set to **ON**.
	INPUT-A	Selects the signal input from the PJ MULTI connector. **COMPUTER:** Inputs the signal from a computer. **COMPONENT:** Inputs the component or progressive component signal from a DVD player, digital BS tuner, etc. **VIDEO GBR:** Inputs the signal from a TV game, DVD player or HDTV broadcast.
	LANGUAGE	Selects the language used in the menu and on-screen displays. Available languages are: English, French, German, Italian, Spanish, Japanese, Chinese, Portuguese and Korean.
	POWER SAVING	When set to **ON**, the POWER SAVING indicator lights. The projector goes into power saving mode if no signal is input for 10 minutes, and the lamp goes out and the cooling fan keeps running. In power saving mode, no button functions for the first 60 seconds. It is cancelled when a signal is input or any button is pressed. If you do not set the projector to power saving mode, select **OFF**.
INSTALL SETTING	KEYSTONE MEM (memory)	**ON:** DIGIT KEYSTONE setting is stored. The data is retrieved when the projector power is turned on. The setting will remain the same every time. **OFF:** DIGIT KEYSTONE is reset to “0” when the power is turned on next time.
	DIGIT KEYSTONE	Corrects the trapezoidal distortion caused by the projection angle. Use this item after selecting the type of distortion, H (horizontal) or V (vertical), with KEYSTONE DIR.
	KEYSTONE DIR	When the picture is a vertical trapezoid ( ), select **V**. Next, correct the distortion with DIGIT KEYSTONE. When the picture is a holizontal trapezoid ( ), select **H**, then correct the distortion with DIGIT KEYSTONE.
	MENU POSITION	Selects the display position from TOP LEFT, BOTTOM LEFT, CENTER, TOP RIGHT and BOTTOM RIGHT.
	MENU COLOR	Selects the tone of the menu display from STANDARD, WARM, COOL, GREEN or GRAY.
	MENU BACKGROUND	Selects the intensity of the background picture of the menu display from DARK, STANDARD or LIGHT.
	LAMP TIMER	Indicates how long the lamp has been turned on.

About the Preset Memory No.

This projector has 32 types of preset data for input signals (the preset memory). When the preset signal is input, the projector automatically detects the signal type and recalls the data for the signal from the preset memory to adjust it to an optimum picture. The memory number and signal type of that signal are displayed in the INPUT SETTING menu.



You can also adjust the preset data through the INPUT SETTING menu.
This projector also has 20 types of user memories for INPUT-A into which you can save the setting of the adjusted data for an unpreset input signal.
When an unpreset signal is input for the first time, a memory number is displayed as 0. When you adjust the data of the signal in the INPUT SETTING menu, it will be registered to the projector. If more than 20 user memories are registered, the newest memory always overwrites the oldest one.
See the chart on page 43 to find if the signal is registered to the preset memory.

Since the data is recalled from the preset memory about the following signals, you can use these preset data by adjusting SIZE H. Make fine adjustment by adjusting SHIFT.

Signal	Memory No.	SIZE
Super Mac-2	23	1312
SGI-1	23	1320
Macintosh 19”	25	1328

Note

When the aspect ratio of input signal is other than 4:3, a part of the screen is displayed in black.

Adjusting Picture Quality of a Signal from the Computer

You can automatically adjust to obtain the clearest picture when projecting a signal from the computer.

1 Project a still picture from the computer.

2 Press the APA button.
When the picture is adjusted properly, “complete” appears on the screen.

Notes

- Press the APA button when the full image is displayed on the screen. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.
- If you switch the input signal or re-connect a computer, press the APA button again to get the suitable picture.
- To restore the original screen, press the APA button again during the adjustment.
- The picture may not be adjusted properly depending on the kinds of input signals.
- Adjust the items in the INPUT SETTING menu when you adjust the picture manually. (☞ page 19)

Using a "Memory Stick"

This section describes how to view the still images that are recorded by a digital camera and stored in a "Memory Stick." You can make a slide show using the images, display an index screen of the images, etc.

About a "Memory Stick"

On "Memory Stick"s

"Memory Stick" is a new compact, portable and versatile IC recording medium with a data capacity that exceeds a floppy disk. "Memory Stick" is specially designed for exchanging and sharing digital data among "Memory Stick" compatible products. Because it is removable, "Memory Stick" can also be used for external data storage.

Types of "Memory Stick"s

There are two types of "Memory Stick"s: MagicGate "Memory Stick"s that are equipped with the MagicGate copyright protection technology and general "Memory Stick"s. You can use both types of "Memory Stick" with your projector. However, because your projector does not support the MagicGate standards, data recorded in the "Memory Stick" is not subject to MagicGate copyright protection.

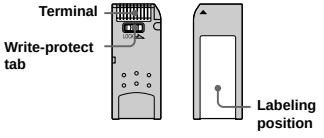
On MagicGate

MagicGate is copyright protection technology that uses encryption technology.

Format that can be displayed with this projector

Image data recorded with a digital camera and recorded on a Memory Stick in the following format: Images (DCF-compatible) compressed in the JPEG (Joint Photographic Experts Group) format (extension: .jpg)

Before using a "Memory Stick"



- You cannot rotate or erase still images when the write-protect tab on the "Memory Stick" is set to LOCK.
- We recommend backing up important data.
- Image data may be damaged in the following cases:
  – If you remove the "Memory Stick," turn the power off, or detach the battery for replacement when the access lamp is flashing.
  – If you use a "Memory Stick" near static electricity or magnetic fields.

Notes

- Prevent metallic objects or your finger from coming into contact with the metal parts of the connecting section.
- Do not attach any other material than the supplied label onto the label space.
- Attach the label to the prescribed labeling position. Make sure the label is attached to the labeling position properly.
- Do not bend, drop or apply strong shock to a "Memory Stick."
- Do not disassemble or modify a "Memory Stick."
- Do not let the "Memory Stick" get wet.
- Do not use or keep a "Memory Stick" in locations that are:
  – Extremely hot such as in a car parked in the sun or under the scorching sun.
  – Under direct sunlight.
  – Very humid or subject to corrosive gases.
- When you carry or store a "Memory Stick," put it in its case.

About formatting "Memory Stick"s

When "Memory Stick"s are shipped from the factory, they are already formatted to a special standard format. When you format "Memory Stick"s, we recommend formatting them on this unit.

Caution when formatting "Memory Stick"s on a personal computer

Pay attention to the following points when formatting "Memory Stick"s on the personal computer, for example, that you are using.
Operation of "Memory Stick"s formatted on the personal computer is not guaranteed on this unit. To use a "Memory Stick" that has been formatted on the personal computer, the "Memory Stick" must be reformatted on this unit. Note that in this case all data stored on the "Memory Stick" will be lost.

Access Lamp

If the access lamp is turned on or is flashing, data is being read from or written to the "Memory Stick." Do not shake the projector or subject it to shock. Do not turn off the power of the projector or remove the "Memory Stick." This may damage the data.

Notes

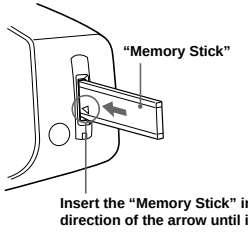
- To prevent data loss, make backup of data frequently. In no event will Sony be liable for any loss of data.
- Unauthorized recording may be contrary to the provisions of copyright law.
- The "Memory Stick" application software may be modified or changed by Sony without prior notice.

- "Memory Stick" and "MEMORY STICK" are trademarks of Sony Corporation.
- "MagicGate Memory Stick" and "MAGICGATE MEMORY STICK" are trademarks of Sony Corporation.

Preparing for Viewing the Still Picture Stored in a "Memory Stick"

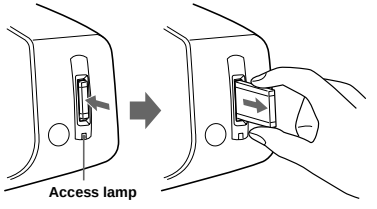
Inserting a "Memory Stick"

Insert the "Memory Stick" into the "Memory Stick" slot on the front of the projector.



To remove the "Memory Stick"

When the access lamp is turned off, press the "Memory Stick" and remove your hand. As the lock is released, remove the "Memory Stick."

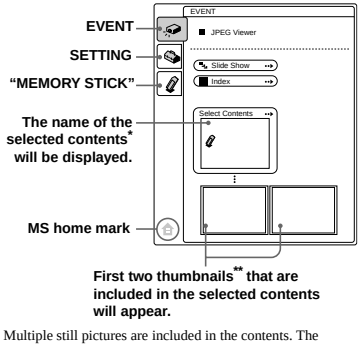


Using the MS (“Memory Stick”) Home

The initial display on the screen is MS Home when you select MS with the INPUT button. The MS home display is used for executing an event (e.g., slide show with JPEG Viewer), setting the Startup and initializing a “Memory Stick.” The guide for the button operation is displayed at the bottom of the MS home display. The selected item is displayed in yellow.

Press INPUT to select MS.

MS home appears.

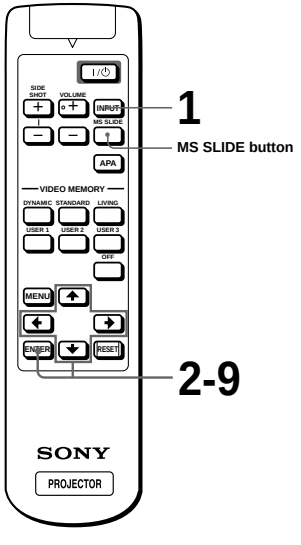


* Multiple still pictures are included in the contents. The contents may include individual still pictures and other contents. You must select contents when you are viewing a still picture stored in a “Memory Stick.”

** Several small pictures included in the contents can be displayed at one time. They are called thumbnails.

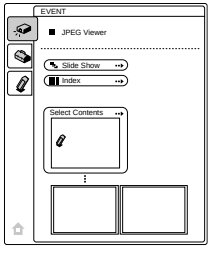
Viewing Still Images in Sequence — Slide Show

You can run a slide show by using still pictures (DCF-compatible) of the JPEG format recorded by a digital camera. You can advance a slide automatically or manually.



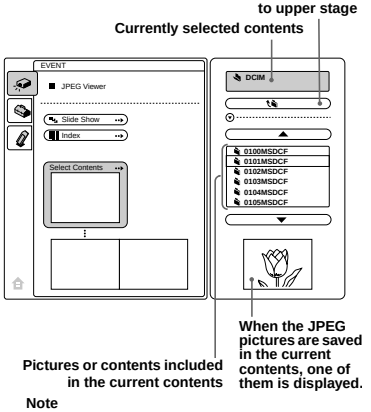
1 Select MS by pressing the INPUT button to display the MS home. (☞ left column)

2 Press ↑ or ↓ to select EVENT, and press ENTER.



3 Press ↑ or ↓ to select “Select Contents,” and press ENTER.

The sub menu for selecting the contents appears.



Note

The contents are sorted numerically and alphabetically up to 256 contents. The later contents will not be sorted.

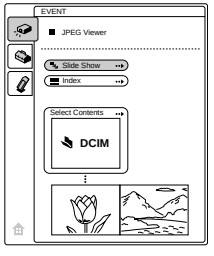
4 Press ↑ or ↓ to select the contents you want to use for your slide show, and press ENTER.

When you want to select contents other than those displayed on the menu, select ▲ or ▼, then press ENTER.

5 Press ENTER.

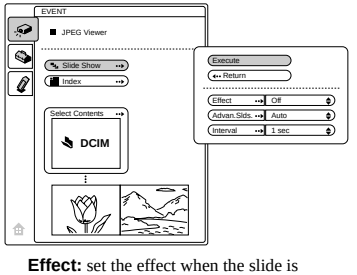
The selected contents name and the first two thumbnails are displayed.

When you want to view all of the pictures in the selected contents, select “Index” and press ENTER.



6 Press ↑ or ↓ to select “Slide Show,” and press ENTER.

The sub menu for setting the following items appears.



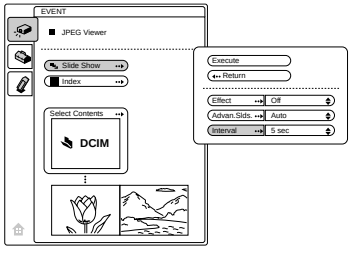
Effect: set the effect when the slide is displayed.

Advan. Slids : set to advance a next slide automatically (“Auto”) or manually (“Manual”).

Interval: set the period for which one slide is displayed. When “Advan. Slids” is set to “Manual,” this item does not work. The time is about right.

7 Press ↑ or ↓ to select the item, and press ENTER.

8 Press ↑ or ↓ to set the selected item, and press ENTER.



9 After setting all the items, press ↑ or ↓ to select "Execute" and press ENTER.

When you set "Advan. Slids" to "Auto," the slide show starts automatically.
When you set to "Manual," use the ← or ↓ button to advance a next slide. To return to the previous slide, use the → or ↑ button.

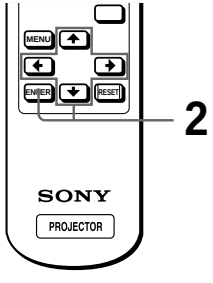
To end the slide show
Press MS SLIDE or ENTER.

To return to the MS home before executing the slide show
Select "Return" in step **9** above.

Executing the Slide Show Promptly
As the settings are stored even if you change the input after performing steps **1** to **8**, press MS SLIDE just as you start the slide show. The input is changed to MS and the slide show starts promptly.

Displaying Index Pictures on the Full Screen

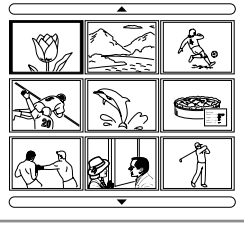
You can display 9 index pictures (thumbnail pictures) contained in the selected contents at one time.



1 Perform steps 1 through 5 in "Viewing Still Images in Sequence — Slide Show." (☞ page 24)

2 Press ↑ or ↓ to select "Index," and press ENTER.

The index screen appears, and 9 index pictures of the selected contents are displayed.



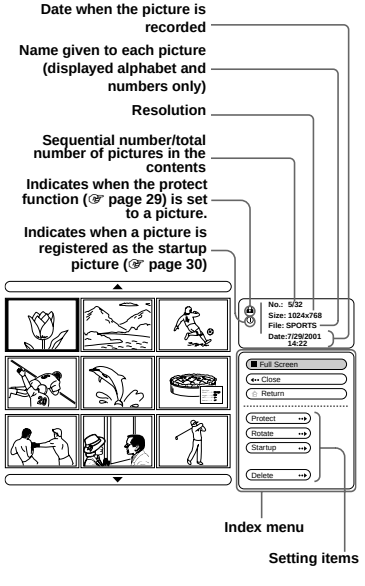
When more than 9 pictures are contained in the contents
You can display the pictures other than the displyed ones by pressing ▲ (previous 9 pictures) or ▼ (next 9 pictures) and ENTER.

To start a slide show with the index screen
Press ↑, ↓, ← or → to select a picture from which a slide show starts, then press MS SLIDE.

Note
The index pictures are sorted numerically and alphabetically up to 256 pictures. The later pictures will not be sorted.

Displaying the Index Menu

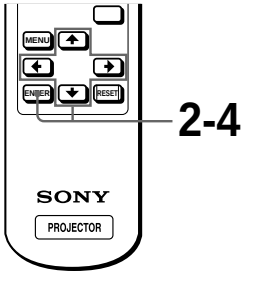
Press ↑, ↓, ← or ↓ to select a picture, and press ENTER.
The index menu for the selected picture is displayed. With this menu you can make various settings for each picture. (☞ pages 27 to 32)



To return to the MS home
Select "Return" and press ENTER.

Displaying a Full-Screen Picture

You can project one of the index pictures on the full screen.



1 Perform steps 1 through 5 in "Viewing Still Images in Sequence — Slide Show." (☞ page 24)

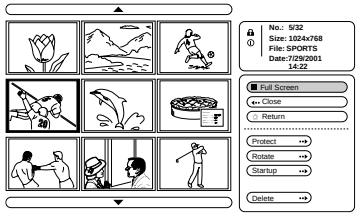
2 Press ↑ or ↓ to select "Index," and press ENTER.

The index pictures of the selected contents are displayed.

Using a "Memory Stick"

3 **Press ↑, ↓, ← or → to select the picture you want to display on the full screen, and press ENTER.**

The Index menu appears.



4 **Press ↑ or ↓ to select "Full Screen," and press ENTER.**

The selected picture is projected to fit the screen.

To display a previous or next slide

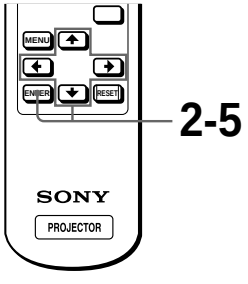
To display the next slide, press → or ↓. To return to the previous slide, press ← or ↑.

To return to the Index screen

Press MS SLIDE or ENTER.

Rotating a Still Picture

You can rotate a still picture in 90° steps.



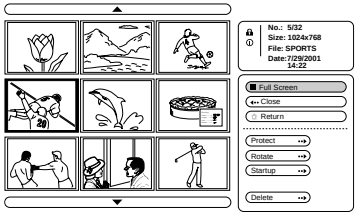
1 **Perform steps 1 through 5 in "Viewing Still Images in Sequence — Slide Show." (☞ page 24)**

2 **Press ↑ or ↓ to select "Index," and press ENTER.**

The index pictures of the selected contents are displayed.

3 **Press ↑, ↓, ← or → to select the picture you want to rotate, and press ENTER.**

The Index menu appears.



4 **Press ↑ or ↓ to select "Rotate," and press ENTER.**

5 **Press ↑ or ↓ to select the direction of rotation, ↻ (clockwise) or ↺ (counterclockwise), and press ENTER.**

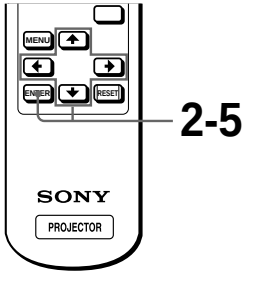
The picture rotates 90° every pressing of the ENTER button.

Notes

- You cannot rotate a picture which is protected. (right column)
  To rotate it, release the protection on that picture.
- When the write-protect tab on the "Memory Stick" is set to LOCK, you cannot rotate the pictures stored in that "Memory Stick."

Protecting an Important Still Picture

You can protect a still picture to prevent it from accidental erasure.



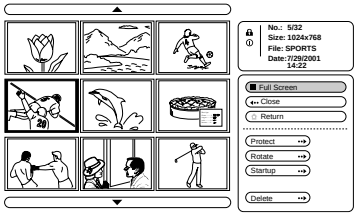
1 **Perform steps 1 through 5 in "Viewing Still Images in Sequence — Slide Show." (☞ page 24)**

2 **Press ↑ or ↓ to select "Index," and press ENTER.**

The index pictures of the selected contents are displayed.

3 **Press ↑, ↓, ← or → to select the picture you want to protect, and press ENTER.**

The Index menu appears.



4 **Press ↑ or ↓ to select "Protect," and press ENTER.**

5 **Press ↑ or ↓ to select "On" or "All on," and press ENTER.**

On: A picture selected on the Index screen is protected.

All on: All the pictures in the selected contents are protected.

The protect mark appears in the Index menu for the protected picture.

To release protection

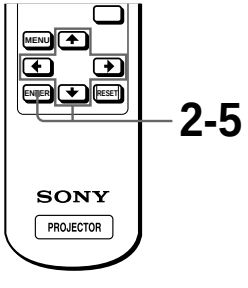
Select "Off" or "All off" in step **5**.
Selecting "Off" releases the protection for the selected picture. Selecting "All off" releases the protection for all the pictures in the selected contents.

Projecting a Selected Picture When the Power Is Turned On — Startup

When the projector is turned on, the specific still picture stored in the projector is projected automatically for about one minute, even if no signal is input. You can change this still picture to the one you prefer.

Registering a Still Picture as the Startup Picture

When you want to use a picture stored in your "Memory Stick" as the startup picture, register the picture in the "Memory Stick."



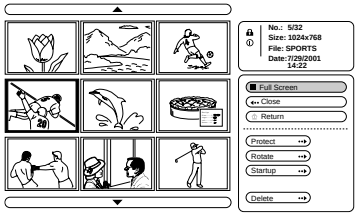
1 **Perform steps 1 through 5 in "Viewing Still Images in Sequence — Slide Show." (☞ page 24)**

2 **Press ↑ or ↓ to select "Index," and press ENTER.**

The index pictures of the selected contents are displayed.

3 **Press ↑, ↓, ← or → to select the picture you want to use as the startup picture, and press ENTER.**

The Index menu appears.

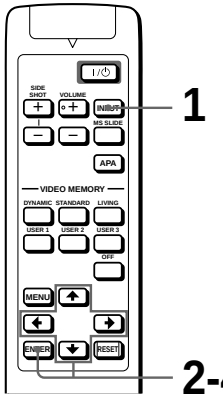


4 **Press ↑ or ↓ to select "Str. up," and press ENTER.**

5 **Press ↑ or ↓ to select "Entry," and press ENTER.**

The startup mark is displayed in the Index menu. You can register one picture used for the startup picture, per one "Memory Stick."

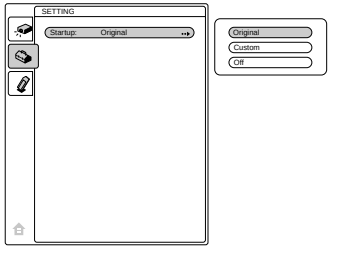
Setting the Startup Picture



1 **Select MS by pressing the INPUT button to display MS home. (☞ page 24)**

2 **Press ↑ or ↓ to select SETTING, and press ENTER.**

3 **Press ↑ or ↓ to select "Startup," and press ENTER.**



4 Press ↑ or ↓ to select the item used for startup picture, and press ENTER.

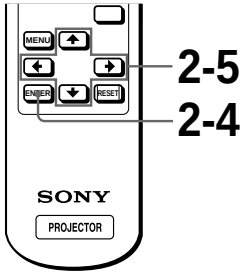
Original: Select to use the original picture stored in the projector. This is the factory setting.
Custom: Select to use the picture registered in the index screen and stored in the "Memory Stick." (☞ page 30)
Off: Select when you do not set the startup.

Notes

- When you want to clear the startup screen while displaying it, press ↑/↓/←/→, or ENTER.
- When you are using the registered picture, insert the "Memory Stick" where the registered picture is saved into the projector, then turn on the power.

Deleting a Still Picture

You can delete unnecessary picture from the "Memory Stick."



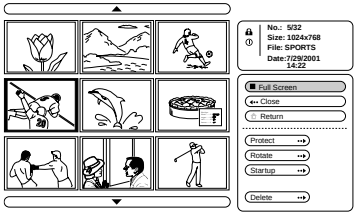
1 Perform steps 1 through 5 in "Viewing Still Images in Sequence — Slide Show." (☞ page 24)

2 Press ↑ or ↓ to select "Index," and press ENTER.

The index pictures of the selected contents are displayed.

3 Press ↑, ↓, ← or → to select the picture you want to delete from the "Memory Stick," and press ENTER.

The Index menu appears.



4 Press ↑ or ↓ to select "Delete," and press ENTER.

5 Press ↑ or ↓ to select the item you want, then press ↑ to delete the picture(s).

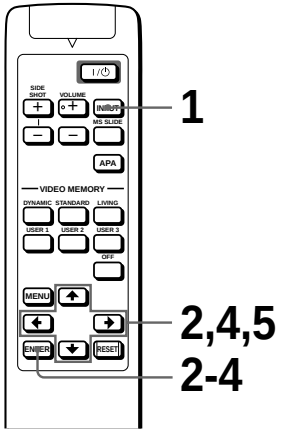
Sel. Img.: delete the selected picture
All Img.: delete all pictures of the selected contents
Close: when you do not delete the picture

Notes

- You cannot delete the picture which is protected. (☞ page 29) To delete it, release the protection on that picture.
- When the write-protect tab on the "Memory Stick" is set to LOCK, you cannot delete the pictures from that "Memory Stick."

Initializing a "Memory Stick"

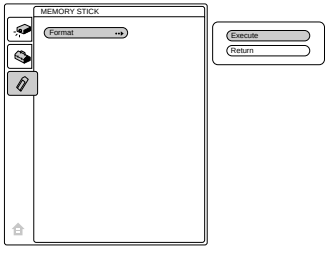
When a "Memory Stick" cannot be used, initialize it by the projector.
All the data stored in a "Memory Stick" is cleared when the "Memory Stick" is initialized.



1 Select MS by pressing the INPUT button to display the MS home. (☞ page 24)

2 Press ↑ or ↓ to select MEMORY STICK , and press ENTER.

3 Press ENTER again.



4 Press ↑ or ↓ to select "Execute," and press ENTER.

5 Press ↑ to start initializing.

To return to the MS home before initializing the "Memory Stick"

Select "Return," and press ENTER in step **4**.

Notes

- When the "Memory Stick" is initialized, the protected picture is also cleared.
- When the "Memory Stick" with the write-protect tab set to LOCK is initialized, the message "MEMORY STICK locked" is displayed.
- While initializing the "Memory Stick," you cannot use the buttons for operation in MS home.

Others

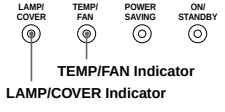
This section describes how to solve the problems, how to replace a lamp and air filter, etc.

Troubleshooting

Symptom	Cause and Remedy
The power is not turned on.	• The power has been turned off and on with the I/⏻ (on/standby) switch at a short interval. → Wait for about one minute before turning on the power (☞ page 15). • The lamp cover is detached. → Close the lamp cover securely (☞ page 38). • The air filter cover is detached. → Close the air filter cover securely (☞ page 39).
No picture.	• Cable is disconnected or the connections are wrong. → Check that the proper connections have been made (☞ pages 8 and 9). • Input selection is incorrect. → Select the input source correctly using the INPUT button (☞ page 15). • The computer signal is not set to output to an external monitor. → Set the computer signal to output to an external monitor. • The computer signal is set to output to both the LCD of the computer and external monitor. → Set the computer signal to output only to the external monitor.
The picture from the PJ MULTI connector is colored strange.	• Setting for INPUT-A in the SET SETTING menu is incorrect. → Select COMPUTER, COMPONENT or VIDEO GBR for INPUT-A in the SET SETTING menu according to the input signal (☞ page 20).
Color balance is incorrect.	• Picture has not been adjusted properly. → Adjust the picture in the PICTURE CTRL menu (☞ page 19). • Projector is set to wrong color system. → Set COLOR SYS in the PICTURE CTRL menu to match the color system being input (☞ page 19).
The picture is too dark.	• Contrast or brightness has not been adjusted properly. → Adjust the contrast or brightness in the PICTURE CTRL menu properly (☞ page 19).
The picture is not clear.	• Picture is out of focus. → Adjust the focus with the focus lever (☞ page 15). • The lens cap is attached to the lens. → Remove the lens cap. • Condensation has occurred on the lens. → Leave the projector for about two hours with the power on.
The picture flickers.	• DOT PHASE in the INPUT SETTING menu has not been adjusted properly. → Adjust DOT PHASE in the INPUT SETTING menu properly (☞ page 19).
On-screen display does not appear.	• STATUS in the SET SETTING menu is set to OFF. → Set STATUS in the SET SETTING menu to ON (☞ page 20).
No sound.	• Cable is disconnected or the connections are wrong. → Check that the proper connections have been made (☞ pages 8 and 9). • VOLUME setting is not correct. → Adjust VOLUME in the PICTURE CTRL menu, or press VOLUME + on the remote control.
When sound is input through the AUDIO connector, sound comes through one channel only.	• Monaural sound is being input through the AUDIO connector. → Input stereo sound.
The remote control does not work.	• Batteries cound be weak. → Replace the batteries (☞ page 5). • The polarity is not correct. → Insert the batteries with correct polarities (☞ page 5).
The “Memory Stick” cannot be inserted into the “Memory Stick” slot.	• The “Memory Stick” is not facing in the correct direction. → Insert the “Memory Stick” with the arrow mark pointing toward the “Memory Stick” slot of the projector.
A still picture in the “Memory Stick” cannot be rotated or deleted.	• The write-protect tab on the “Memory Stick” has been set to LOCK. → Cancel the lock (☞ page 22). • The picture is protected. → Release the protect in the Index screen (☞ page 29).
The “Memory Stick” cannot be formatted.	• The write-protect tab on the “Memory Stick” has been set to LOCK. → Cancel the lock (☞ page 22). • The “Memory Stick” is broken. → Use another “Memory Stick”.
When the slide show is made, the MS flashes.	• Pictures with different resolutions are used for the slide show. → Set STATUS of the SET SETTING menu to OFF (☞ page 20).
When the slide show is made, a black picture appears.	• When pictures with different resolutions are used, a black picture appears. → Set the resolution of the pictures to the same setting.
The thumbnails are not displayed.	• The pictures are the JPEG format but not DCF-compatible. → Use the DCF-compatible pictures.

Indicators

The LAMP/COVER or TEMP/FAN indicator on the control panel lights up or flashes if there is any trouble with your projector.



Indicator	Meaning and Remedy
LAMP/COVER flashes.	• The lamp cover or the air filter cover is detached. →Attach the cover securely (☞ pages 38 and 39).
LAMP/COVER lights up.	• The lamp has reached the end of its life. →Replace the lamp (☞ page 38). • The lamp becomes a high temperature. →Wait for one minute to cool down the lamp and turn on the power again (☞ page 15).
TEMP/FAN flashes.	• The fan is broken. →Consult with qualified Sony personnel.
TEMP/FAN lights up.	• The internal temperature is unusually high. →Check to see if nothing is blocking the ventilation holes.
LAMP/COVER and TEMP/FAN light up.	• The electrical system breaks down. →Consult with qualified Sony personnel.

Warning Messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning and Remedy
High temp.! Lamp off in 1 min.	• Internal temperature is too high. →Turn off the power. →Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	• This input signal cannot be projected as the frequency is out of the acceptable range of the projector. →Input a signal that is within the range of the frequency. • The resolution setting of the output signal of a computer is too high. →Set the setting of output to SVGA.
Please check INPUT-A setting.	• You have input RGB signal from the computer when INPUT-A in the SET SETTING menu is set to COMPONENT or VIDEO GBR. →Set INPUT-A correctly (☞ page 20).
Please replace the LAMP.	• It is time to replace the lamp. →Replace the lamp (☞ page 38).
Please replace the filter.	• It is time to replace the air filter. →Replace the air filter (☞ page 39).

Caution Messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning and Remedy
NO INPUT	• No input signal →Check connections (☞ page 8).
Not applicable!	• You have pressed the wrong button. →Press the appropriate button.
File error	• In the sub menu for selecting the contents when using a “Memory Stick,” the presently selected contents name consists of more than 66 characters (“/” included). →Reenter the name with less than 66 characters.
No MEMORY STICK	• The “Memory Stick” is not correctly inserted. →Check the “Memory Stick” and insert it correctly.

Caution displays while you are using the “Memory Stick”

When the following display appears on the screen, you cannot use this “Memory Stick.” Use another one.

	• The image data is the JPEG format but not DCF-compatible. Resolution of the image data is out of the acceptable range of the projector. (The projector accepts images with resolution of 5120 ◊ 4096 dots.)
	There is the thumbnail but it is not DCF-compatible.
	There is no selected image data.
	There is the image data but no thumbnail.
	There is the image data but the thumbnail is broken.
	The image data is broken.

Others

Replacing the Lamp

The lamp used for the light source has a certain life. When the lamp dims, the color balance of the picture becomes strange, or "Please replace the LAMP." appears on the screen, the lamp is exhausted. Replace the lamp with a new one (not supplied).
Use LMP-H120 Projector Lamp as the replacement lamp.

When replacing the lamp after using the projector

Turn off the projector, then unplug the power cord. Wait for at least an hour for the lamp to cool.

Caution

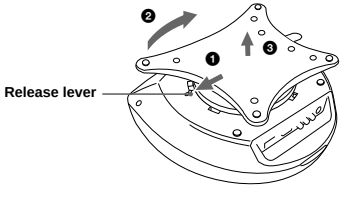
The lamp becomes a high temperature after turning off the projector with the I/⏻ (on/standby) switch. If you touch the lamp, you may scald your finger. When you replace the lamp, wait for at least an hour for the lamp to cool.

1 Place a protective sheet (cloth) beneath the projector. Turn the projector over so you can see its underside.

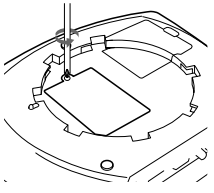
Note

Be sure that the projector is stable after turning it over.

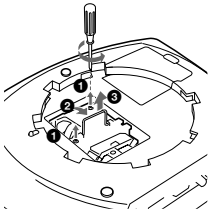
2 Slide the release lever on the adjuster outward and turn the adjuster clockwise to remove the adjuster.



3 Open the lamp cover by loosening a screw with the Philips screwdriver.



4 Loosen the two screws on the lamp unit with the Philips screwdriver. Pull out the lamp unit by the handle.



5 With the lamp surface facing toward the rear of the projector, insert the new lamp all the way in until it is securely in place. Tighten the two screws. Fold up the handle.

Notes

- Be careful not to touch the glass surface of the lamp.
- The power will not turn on if the lamp is not secured properly.

6 Close the lamp cover and tighten the screws.

7 Attach the adjuster.

8 Turn the projector back over.

9 Connect the power cord and turn the projector to standby mode.

10 Press the following buttons on the control panel in the following order for less than five seconds each: RESET, ←, →, ENTER.

Notes

- Do not put your hands into the lamp replacement spot, or not fall any liquid or object into it to avoid electrical shock or fire.
- Be sure to use the LMP-H120 Projector Lamp for replacement. If you use lamps other than LMP-H120, the projector may cause a malfunction.
- Be sure to turn off the projector and unplug the power cord before replacing the lamp.

Disposal of used projector lamp

As the materials used in this lamp are similar to those of a fluorescent lamp, you should dispose of a used projector lamp in the same way as a fluorescent lamp.

Replacing the Air Filter

The air filter should be replaced periodically. When "Please replace the filter." appears on the screen, replace the air filter immediately.

Notes

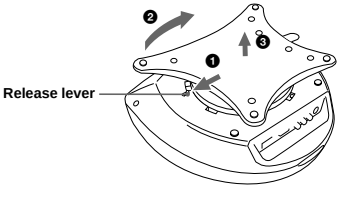
- Replacing the air filter is very important to maintain the high efficiency of the projector and to prevent a malfunction. When the replacement message appears on the screen, replace the air filter without delay.
- When removing the air filter from the projector, be careful that no dust or object gets into the inside of the projector.

1 Place a protective sheet (cloth) beneath the projector. Turn the projector over so you can see its underside.

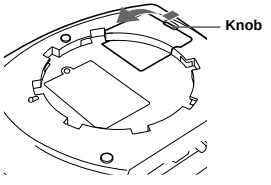
Note

Be sure that the projector is stable after turning it over.

2 Slide the release lever on the adjuster outward and turn the adjuster clockwise to remove the adjuster.

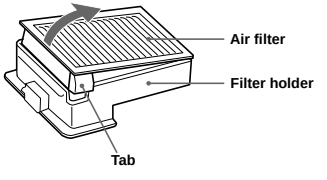


3 Push the knob on the filter cover to remove the filter cover.



4 Remove the filter holder.

5 Remove the air filter from the filter holder by holding the tab on the air filter.



6 Insert the new air filter into the filter holder with the white surface up, then replace it in the projector.

7 Replace the filter cover.

8 Attach the adjuster.

Others

Specifications

System

Projection system
3 LCD panels, 1 lens, projection system
LCD panel 0.7-inch TFT LCD panel, 1,440,000 pixels (480,000 pixels × 3)
Lens 1.3 times zoom lens (manual)
Lamp 120 W UHP type
Projection picture size
Range: 40 to 150 inches (measured diagonally)
Color system NTSC3.58/PAL/SECAM/NTSC4.43/PAL-M/PAL-N system, switched automatically/manually
Acceptable video signals
15k, DTV (480i/480p/1080i/720p)
Acceptable computer signals
fH: 19 to 72 kHz
fV: 48 to 92 Hz
Speaker Stereo speakers system, 33 mm (1 5/16 inches) diameter, max. 2 W × 2

Input/Output

Video input VIDEO: phono type
Composite video: 1 Vp-p ± 2 dB sync negative (75 ohms terminated)
S VIDEO: Y/C mini DIN 4-pin type (male)
Y (luminance): 1 Vp-p ±2 dB sync negative (75 ohms terminated)
C (chrominance): burst 0.286 Vp-p ±2 dB (NTSC) (75 ohms terminated), burst 0.3 Vp-p ±2 dB (PAL) (75 ohms terminated)
AUDIO Stereo minijack
500 mVrms, impedance more than 47 kilohms
PJ MULTI 32-pin multi connector
Analog RGB/component:
R/CR (PR): 0.7 Vp-p ±2 dB (75 ohms terminated)
G: 0.7 Vp-p ±2 dB (75 ohms terminated)
G with sync/Y: 1 Vp-p ±2 dB sync negative (75 ohms terminated)
B/CB (PB): 0.7 Vp-p ±2 dB (75 ohms terminated)
SYNC/HD: Composite sync input: 1-5 Vp-p high impedance, positive/ negative
Horizontal sync input: 1-5 Vp-p high impedance, positive/ negative
VD: Vertical sync input: 1-5 Vp-p high impedance, positive/ negative
"Memory Stick" slot 1

General

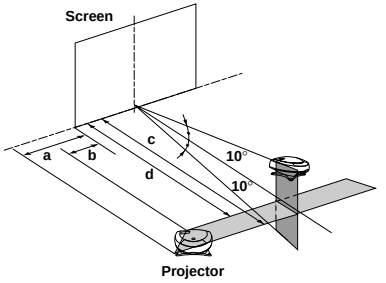
Dimensions 340 × 154 × 300 mm (13 1/2 × 6 1/8 × 11 7/8 inches) (w/h/d)
Mass Approx. 3.9 kg (8 lb 10 oz)
Power requirements
AC 100 to 240 V, 1.9-0.8 A, 50/60 Hz
Power consumption
Max. 190 W
(Standby mode: 5 W)
Supplied accessories
Remote control RM-PJHS1 (1)
Size AA (R6) batteries (2)
Signal interface cable SIC-HS10 (5 m) (1)
AC power cord (1)
Air filter (for replacement) (1)
Lens cap (1)
Operating Instructions (1)

Design and specifications are subject to change without notice.

Optional accesories

Signal interface unit IFU-HS1
Projector stand SU-HS1
Signal interface cable
SIC-HS10 (5 m)
SIC-HS20 (5 m)
SIC-HS30 (5 m)
SIC-HS40 (5 m)
Projector Lamp LMP-H120 (for replacement)
Air filter PK-HS1FL (for replacement)

Projection Distances for a 720p format signal, computer's signal, etc.



When projecting a 720p format signal

Unit: m (feet)

Screen size (inches)	40	60	80	100	120	150
a	0.3 (1.0)	0.5 (1.6)	0.7 (2.3)	0.9 (3.0)	1.1 (3.6)	1.3 (4.3)
b	0.1 (0.3)	0.2 (0.7)	0.3 (1.0)	0.4 (1.3)	0.5 (1.6)	0.6 (2.0)
c	2.0 (6.6)	3.0 (9.8)	4.0 (13.1)	5.1 (16.7)	6.1 (20.0)	7.6 (24.9)
d	1.8 (5.9)	2.7 (8.9)	3.6 (11.8)	4.5 (14.8)	5.4 (17.7)	6.8 (22.3)

When projecting a computer's signal or data stored in a "Memory Stick"

Unit: m (feet)

Screen size (inches)	40	60	80	100	120	150
a	0.1 (0.3)	0.1 (0.3)	0.2 (0.7)	0.3 (1.0)	0.4 (1.3)	0.4 (1.3)
b	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
c	1.8 (5.9)	2.8 (9.2)	3.7 (12.1)	4.7 (15.4)	5.6 (18.4)	7.0 (23.0)
d	1.6 (5.2)	2.5 (8.2)	3.3 (10.8)	4.2 (13.8)	5.0 (16.4)	6.3 (20.7)

Input signals and adjustable/setting items

Some of the items in the menus cannot be adjusted depending on the input signal.

PICTURE CTRL menu

Item	Input signal			
	Video or S video (Y/C)	Component	Video GBR	Computer/MS
CONTRAST	●	●	●	●
BRIGHT	●	●	●	●
COLOR	● (except for B & W)	●	●	–
HUE	● (NTSC3.58/4.43 only, except for B & W)	●	●	–
SHARP	●	●	●	–
RGB ENHANCER	–	–	–	
D. PICTURE	●	● (15k RGB only)	● (15k RGB only)	–
GAMMA MODE	–	–	● (15k RGB only)	●
COLOR TEMP	●	●	●	●
COLOR SYS	●	–	–	–
VOLUME	●	●	●	●

● : Adjustable/can be set
– : Not adjustable/cannot be set

INPUT SETTING menu

Item	Input signal				
	Video or S video (Y/C)	Component	Video GBR	Computer	MS
DOT PHASE	–	– (except for HDTV)	– (except for HDTV)	●	–
SIZE H	–	– (except for HDTV)	– (except for HDTV)	●	–
SHIFT	●	●	●	●	–
SCAN CONV	–	–	–	● (lower than VGA)	–
ASPECT	●	● (except for preset memory numbers 5, 45, 47, 48 and 50 of HDTV)	● (except for preset memory numbers 5, 45, 47, 48 and 50 of HDTV)	–	–
VIDEO MEMORY	●	●	●	●	–

● : Adjustable/can be set
– : Not adjustable/cannot be set

Preset Signals

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	SIZE
1	Video 60 Hz		15.734	59.940	—	—
2	Video 50 Hz		15.625	50.000	—	—
3	15k RGB/Component 60 Hz		15.734	59.940	SonG/Y or Composite Sync	—
4	15k RGB/Component 50 Hz		15.625	50.000	SonG/Y or Composite sync/ Composite video	—
5	1080/60i, 1035/60i (DTV)		33.750	60.000	SonG/Y	1800
6	640 × 350	VGA mode 1	31.469	70.086	H-pos, V-neg	800
7		VGA VESA 85Hz	37.861	85.080	H-pos, V-neg	832
8	640 × 400	PC-9801 Normal	24.823	56.416	H-neg, V-neg	848
9		VGA mode 2	31.469	70.086	H-neg, V-pos	800
10		VGA VESA 85Hz	37.861	85.080	H-neg, V-pos	832
11	640 480	VGA mode 3	31.469	59.940	H-neg, V-neg	800
12		Macintosh 13”	35.000	66.667	H-neg, V-neg	864
13		VGA VESA 72Hz	37.861	72.809	H-neg, V-neg	832
14		VGA VESA 75Hz	37.500	75.000	H-neg, V-neg	840
15		VGA VESA 85Hz	43.269	85.008	H-neg, V-neg	832
16	800 × 600	SVGA VESA 56Hz	35.156	56.250	H-pos, V-pos	1024
17		SVGA VESA 60Hz	37.879	60.317	H-pos, V-pos	1056
18		SVGA VESA 72Hz	48.077	72.188	H-pos, V-pos	1040
19		SVGA VESA 75Hz	46.875	75.000	H-pos, V-pos	1056
20		SVGA VESA 85Hz	53.674	85.061	H-pos, V-pos	1048
21	832 × 624	Macintosh 16”	49.724	74.550	H-neg, V-neg	1152
22	1024 × 768	XGA VESA 43Hz	35.522	43.479	H-pos, V-pos	1264
23		XGA VESA 60Hz	48.363	60.004	H-neg, V-neg	1344
24		XGA VESA 70Hz	56.476	70.069	H-neg, V-neg	1328
25		XGA VESA 75Hz	60.023	75.029	H-pos, V-pos	1312
26		XGA VESA 85Hz	68.677	84.997	H-pos, V-pos	1376
43	480/60p (Progressive component)		31.470	60.000	SonG/Y	—
44	525/50p (Progressive component)		31.250	50.000		—
45	1080/50i (DTV)		28.130	50.000		2000
47	720/60p (DTV)		45.000	60.000		2150
48	720/50p (DTV)		37.500	50.000		2342
50	540/60p		33.750	60.000		1796

Notes

- Whan a signal other than the preset signals shown above is input, the picture may not appear properly.
- The signal from the Memory Stick is displayed as No. 53 to 60.

Warning on power connection

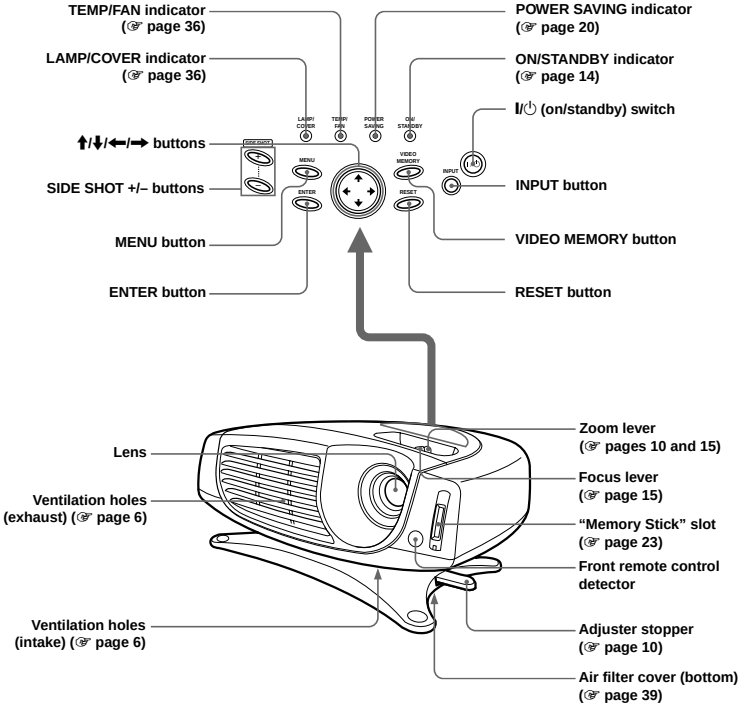
Use a proper power cord for your local power supply.

	The United States, Canada	Continental Europe	UK	Australia	Japan
Plug type	YP-11	YP-21	SP-61	B8	YP-13
Female end	YC-13L	YC-13L	YC-13L	C7-2	YC-13L
Cord type	SPT-2	H03VVH2-F	H03VVH2-F	H03VVH2-F	VCTFK
Rated Voltage & Current	10A/125V	2.5A/250V	2.5A/250V	2.5A/250V	7A/125V
Safety approval	UL/CSA	VDE	BS	SAA	DENANHO

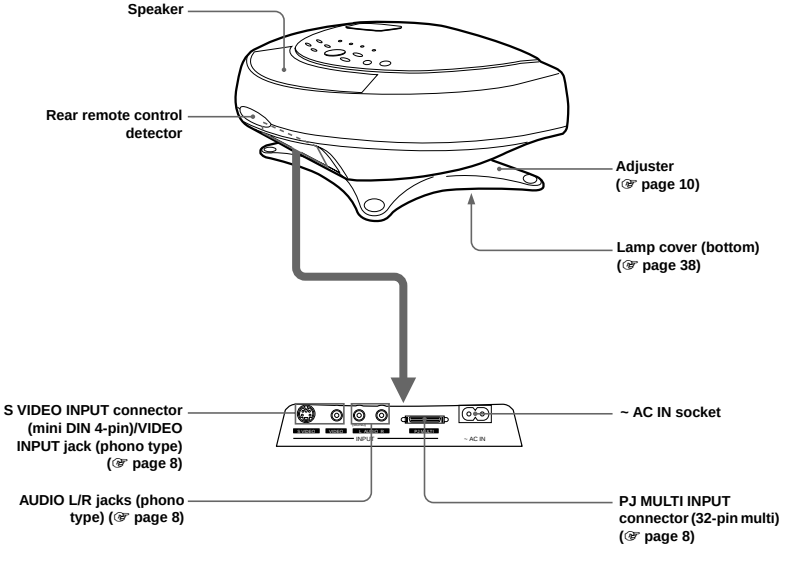
Location of Controls

Front

You can use the buttons on the control panel with the same names as those on the remote control to operate the projector.

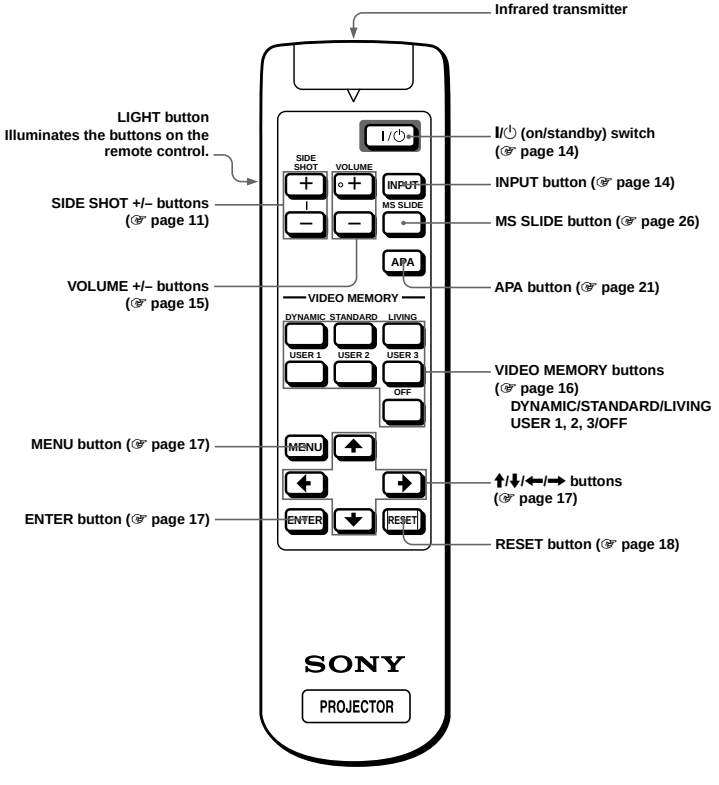

TEMP/FAN indicator (☞ page 36)
LAMP/COVER indicator (☞ page 36)
↑/↓/←/→ buttons
SIDE SHOT +/– buttons
MENU button
ENTER button
POWER SAVING indicator (☞ page 20)
ON/STANDBY indicator (☞ page 14)
I/⏻ (on/standby) switch
INPUT button
VIDEO MEMORY button
RESET button
Zoom lever (☞ pages 10 and 15)
Focus lever (☞ page 15)
"Memory Stick" slot (☞ page 23)
Front remote control detector
Adjuster stopper (☞ page 10)
Air filter cover (bottom) (☞ page 39)
Lens
Ventilation holes (exhaust) (☞ page 6)
Ventilation holes (intake) (☞ page 6)

Rear


Speaker
Rear remote control detector
Adjuster (☞ page 10)
Lamp cover (bottom) (☞ page 38)
S VIDEO INPUT connector (mini DIN 4-pin)/VIDEO INPUT jack (phono type) (☞ page 8)
~ AC IN socket
AUDIO L/R jacks (phono type) (☞ page 8)
PJ MULTI INPUT connector (32-pin multi) (☞ page 8)

Others

Remote control



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SONY

4-085-351-**01** (1)

Projector Stand

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Instructions de montage page 5
Montageanleitung Seite 6
Instrucciones de montaje página 7
Istruzioni per il montaggio pagina 8
安装说明书 第 9 页

お買い上げいただきありがとうございます。

⚠警告 安全のための注意事項を守らないと、人身事故になることがあります。

この組み立て説明書には、事故を防ぐための重要な注意事項と製品の取り扱いかたを示してあります。**この組み立て説明書をよくお読みのうえ、**製品を安全にお使いください。お読みになったあとは、いつでも見られるところに必ず保管してください。

SU-HS1

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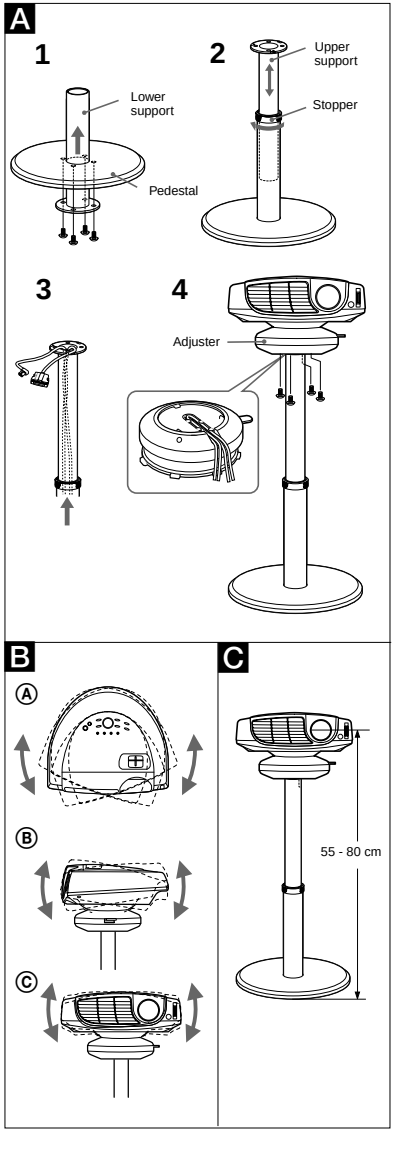


English

The SU-HS1 is a Projector Stand for the LCD Video Projector only. Assemble the Projector Stand and adjust it as follows:

Assembling the Projector Stand A

Before assembling

Remove the adjuster mounted on the LCD Video Projector. To remove it, refer to the Video Projector Operating Instructions.

1 Pass a lower support part through the hole of a pedestal, then fix it with the supplied 4 long screws.

2 Mount a upper support part and stopper to the lower support part and adjust it height, then fix it.

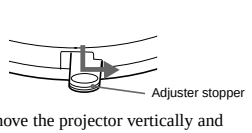
3 Pass a AC power cord and PJ Multi cable through the supports.
Pull out the cables from the top of the upper support for 20 to 30 cm so that they reach to the projector.

4 Store the cables into the groove at the back of the adjuster, and fix the adjuster to the support with the four short screws.

5 Connect the cables passed through the supports to the projector.

Adjusting the adjuster B

Using the adjuster of the projector stand, you can adjust the projecting picture position.
Hold down and slide the adjuster stopper to the right, move the projector, then replace the stopper.



You can move the projector vertically and horizontally within the following ranges:
Ⓐ Up to 20° each for horizontal angle
Ⓑ Up to 10° each for vertical angle
Ⓒ Up to 2° each for tilting angle

Adjusting the height of the supports C

You can adjust the height of the supports within the following range:
55 to 80 cm (Distance between the center of the lens and the floor)

Specifications

Dimensions: 420 × 420 × 750mm (W × D × H)
Mass: Approx. 5.5 kg (13 lb)

SONY

4-085-602-**02** (1)

Signal Interface Unit

シグナルインターフェースユニット

取扱説明書
Operating instructions
Mode d’emploi
Bedienungsanleitung
Instrucciones de uso
Istruzioni per l’uso
使用说明书

IFU-HS1

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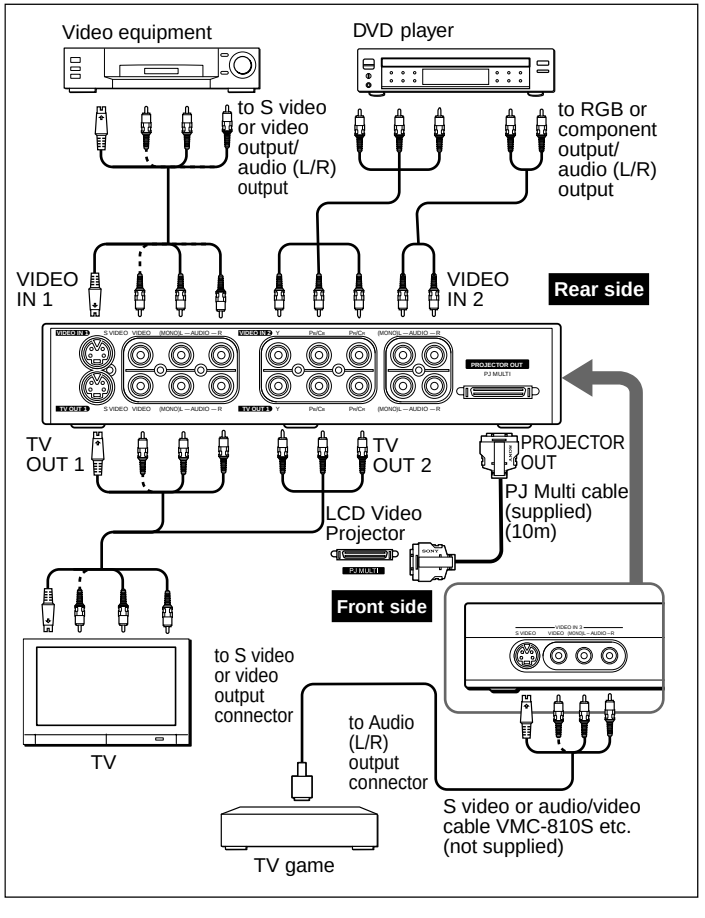
English

Connection (Connecting with a TV Game or VCR Equipment or 15k RGB/Component Equipment)



How to Use

INPUT: Press INPUT select switch to select a equipment connected to the Signal Interface Unit.
OUTPUT: Select TV/PROJECTOR select switch to suite your preference.

Specifications

Dimensions: 230 × 90 × 50 mm (without the cable) (W × D × H)
Mass: Approx. 850 g (1 lb 12 oz)

Supplied Accessory

Multi cable 10 m (length)